

REMARKS

Claims 1 and 3-14 are pending in the application, and are rejected. Claims 1 and 3-14 are herein amended. No new matter has been presented.

Amendment to claim 1 is supported by at page 18, lines 10 to 25 and page 20, lines 5 to 16 of the specification. Amendment to claim 3 is supported at page 5, lines 25 to 27. Amendment to claim 11 is supported at page 20, line 26 to page 22, line 6.

Claim Rejections - 35 U.S.C. §102(b)

Claims 1 and 4-9 are rejected under 35 U.S.C. §102(b) as being anticipated by JP 11-268187 to Suzuki.

The Examiner asserts that the cited Suzuki discloses all of the invention except for the use of the copolymer as a friction modifier. The Examiner asserts that because the copolymer of Suzuki meets the structural limitations of the claimed copolymer, it is capable of performing the intended use. The copolymers of Suzuki are obtainable by the methods recited in claims 5-6.

Claims 1, 3, and 7-9 are rejected under 35 U.S.C. §102(b) as being anticipated by US 5,191,029 to DelDonno, for essentially the same reasons as with the rejection over Suzuki, above.

Claim Rejections - 35 U.S.C. §103(a)

Claim 10 is rejected under 35 U.S.C. §103(a) as being unpatentable over DelDonno. The Examiner asserts that DelDonno discloses a copolymer meeting the limitations of claim 1, but admits that DelDonno does not disclose a copolymer with a molecular weight falling within the

range recited in claim 10. However, the Examiner notes that DelDonno does disclose that the copolymer preferably has a molecular weight of about 500,000 or greater, overlapping the range recited in claim 10.

Claims 1, 3, and 7-12 are rejected under 35 U.S.C. §103(a) as being unpatentable over US Pub. No. 2002/0058749 to Larson. The Examiner characterizes the sole difference between Larson and the currently presented claims as being that Larson does not disclose a copolymer with a molecular weight within the ranges recited in claim 1 and 10. However, the Examiner notes that in paragraph [0020] Larson discloses that the polymer has a weight average molecular weight of 1,000 to 5,000,000, overlapping the ranges recited in claims 1 and 10.

Claims 13-14 are rejected under 35 U.S.C. §103(a) as being unpatentable over Suzuki in view of U.S. Patent No. 4,666,617 to Katayama. The Examiner asserts that Suzuki discloses a copolymer meeting the limitations of claim 1, but does not disclose its use in a lubricating oil composition.

The Examiner asserts that the use of the copolymer of Suzuki as the copolymer in the composition of Katayama meets the limitations of claims 13-14. The Examiner concludes that it would have been obvious to use the copolymer of Suzuki as the additive in the cold rolling oil of Katayama as Katayama teaches that copolymers with similar structures are useful additives.

Applicants' Response to the Rejections

Amendment to claim 1 is supported by at page 18, lines 10 to 25 and page 20, lines 5 to 16 of the specification. Amendment to claim 3 is supported at page 5, lines 25 to 27 of the

specification. Amendment to claim 11 is supported at page 20, line 26 to page 22, line 6 of the specification.

Applicants herein amend claims 1 and 3-14 to clarify the invention. Thereafter, Applicants respectfully disagree with the rejections because not all of the claimed limitations are taught or suggested by the cited references, alone or in proper combination.

Applicants note that the friction modifier composition of the present invention comprises an oil-soluble copolymer (A) and a diluent. The oil-soluble copolymer (A) contains at least one unit of a monomer (a) represented by the general formula (1) and at least one unit of a monomer (b) represented by the general formula (2). The lubricating oil composition of the present invention comprises base oil and the friction modifier composition.

The effect of the present invention is shown in Table 3. The lubricating oil compositions obtained in Examples 1 to 14 show excellent friction regulation effects. They are capable of reducing transmission shock, have high friction coefficient required for power transmission, and in addition, are excellent in wear resistance.

Applicants submit that Suzuki (JP11-268187) and DelDonno (US 5,191,029) each fail to disclose a composition that comprises a copolymer and a diluent. Therefore, the friction modifier composition of the present invention (claims 1 and 3 to 10) is neither anticipated by nor obvious over Suzuki or DelDonno.

Because claim 1 is submitted to be patentably distinguished as noted above, and because claims 13 and 14 depend from claim 1 and necessarily include its limitations, the lubricating oil

composition of claims 13 and 14 comprising the friction modifier composition and base oil is similarly distinguished over Suzuki in view of Katayama (US 4,666,617).

Applicants note that Larson (US 2002/0058749) discloses an aqueous coating composition comprising aqueous emulsion copolymer, the copolymer comprising as polymerized units: (a) one or more ethylenically unsaturated monomers or salts thereof, and (b) one or more ethylenically unsaturated acid monomers or salts thereof, comprising at least one strong acid monomer or salt thereof. Larson teaches that phosphoethylmethacrylate can be used as the strong acid monomer in (b) (paragraph [0008]) and methyl methacrylate can be used as the ethylenically unsaturated monomer (a) (paragraph [0011]).

The Examiner characterizes that water in the composition of Larson as corresponding to the diluent of the friction modifier composition of the present invention. However, Larson is silent about the claimed diluent used in the present invention, which is selected from the group consisting of high flash point solvents (flash point of 130°C or more), aliphatic hydrocarbon, aromatic hydrocarbon, alcohol solvents, ketone solvents, amide solvents, and sulfoxide solvents. Therefore, Applicants submit that the present invention is not anticipated by Larson.

Further, those skilled in the art would have no motivation from Larson to use solvents other than water, because Larson relates to a field of aqueous coatings. Therefore, there would have been no motivation found in Larson to substitute other solvents for water. Accordingly, the present invention (claims 1 and 3 to 12) would not have been obvious over Larson.

Application No. 10/509,426
Attorney Docket No. 042747

Amendment under 37 C.F.R. §1.111
Amendment filed August 21, 2008

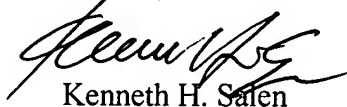
In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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